

FACT SHEET

United States Environmental Protection Agency (EPA)
Region 10
Park Place Building, 13th Floor
1200 Sixth Avenue, WD-134
Seattle, Washington 98101
(206) 553-1214

Date:

Permit No.: ID-002023-1

PROPOSED REISSUANCE OF A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE POLLUTANTS PURSUANT TO THE PROVISIONS OF THE CLEAN WATER ACT (CWA)

City of McCall, Idaho

has applied for reissuance of a NPDES permit to discharge pollutants pursuant to the provisions of the CWA. This Fact Sheet includes (a) the tentative determination of the EPA to reissue the permit, (b) information on public comment, public hearing and appeal procedures, the description of the current discharge, (c) a listing of tentative effluent limitations, schedules of compliance and other conditions, and (d) a sketch or detailed description of the discharge location. We call your special attention to the technical material presented in the latter part of this document.

Persons wishing to comment on the tentative determinations contained in the proposed permit reissuance may do so by the expiration date of the Public Notice. All written comments should be submitted to EPA as described in the Public Comments Section of the attached Public Notice.

After the expiration date of the Public Notice, the Acting Director of the Office of Water will make final determinations with respect to the permit reissuance. The tentative determinations contained in the draft permit will become final conditions if no substantive comments are received during the public notice period.

The permit will become effective 30 days after the final determinations are made, unless a request for an evidentiary hearing is submitted within 30 days after receipt of the final determinations.

The proposed NPDES permit and other related documents are on file and may be inspected at the above address any time between 8:30 a.m. and 4:00 p.m., Monday through Friday. Copies and other information may be requested by writing to EPA at the above address to the attention of the Water Permits Section, or by calling (206) 553-1214. This material is also available from the EPA Idaho Operations Office, 1435 North Orchard Street, Boise, Idaho 83706.

TECHNICAL INFORMATION

1. Applicant

City of McCall
P.O. Box 986
McCall, Idaho 83638

Contact: Gary Shimun
City Manager

2. Activity

The city of McCall and the Payette Lakes Water And Sewer District own and operate a facility that treats wastewater from both domestic and commercial sources (SIC 4952). This facility discharges secondary treated, disinfected wastewater to the North Fork of the Payette River. The collection system has no combined sewers and no significant industrial discharges. Septage is intermittently received at the treatment facility.

3. Receiving Water

The city of McCall discharges throughout the year to the North Fork of the Payette River (NFPR) at river mile 73. The state of Idaho Water Quality Standards and Wastewater Treatment requirements (16 IDAPA 16.01.2140.01.gg.) protect the NFPR for the following existing uses: domestic water supply, agricultural water supply, cold water biota, salmonid spawning, primary and secondary contact recreation. Flow rates in this reach of the NFPR are regulated by gates at the outlet of Payette Lake, approximately three miles upstream of the McCall discharge. USGS gaging station records below Payette Lake indicate design assumption flows listed in table 1. Design flows are derived from the one day 1 in 10 year low flow (1Q10, Acute), the seven day 1 in 10 year low flow (7Q10, Chronic), 30 day 1 in 5 year low flow (30Q5, Human Health non-carcinogens), and Harmonic Mean Flow (Carcinogens) from a Storet version of DFLOW using a simplified log-Pearson Type III method. All design flow assumptions are based on recommendations of EPA's Technical Support Document for Water Quality-Based Toxics Control, March, 1991.

Table 1	USGS Station #13239000
IQ10	1.07 cfs
7Q10	1.19 cfs
30Q5	4.62 cfs
Harmonic Mean Flow	21.12 cfs

The low flows/design flows in Table 1 are a direct result of almost total diversion of the normal river flow during low flow periods during fall and winter. Consequently, the design flows are extremely low and do not accurately represent actual instream conditions because of a diversion to a state operated fish hatchery upstream of the gauging station which provides return flows of approximately 20 cfs downstream of the station. All the calculated flows in Table 1 are therefore augmented by 20 cfs.

Water quality data for the NFPR from the draft TMDL study on Cascade Reservoir, taken by the state of Division of Environmental Quality (IDEQ) indicate the river is relatively pristine. Table 2 summarizes data for conventional pollutant water quality pollutants and nutrient data.

Table 2		
Parameter	Range	Units
Temperature	0-24	°C
pH	5.8 - 8.8	Std. Units
Dissolved Oxygen	6.9 - 9.5	mg/l
Dissolved Oxygen (% Saturation)	82 - 107%	
Ammonia	0.006 - 0.052	mg/l
Total Nitrogen	0.119 - 0.565	mg/l
Total Phosphorus	0.005 - 0.277	mg/l
Dissolved Ortho-Phosphorus	<0.001 - 0.005	mg/l

Cascade Reservoir, downstream from the McCall's current discharge has been listed as a water quality limited waterbody by the State of Idaho and has therefore been listed EPA's 1994 § 303 (D) list for nutrients, pathogens, dissolved oxygen and pH. Currently, a final TMDL for Cascade Reservoir

authored by DEQ for these parameters is in the final stages of preparation. The final TMDL calls for the city of McCall to completely eliminate their contribution of phosphorus to the NFPR and ultimately Cascade Reservoir. The implications of this requirement will be discussed in further detail in item 6 of this fact sheet. Most of the water quality impacts to the reservoir can be traced to activities in surrounding watersheds and the physical characteristics of the reservoir itself. Since the 1970s, advancing eutrophication due to many non-point and point sources of nutrients have caused nuisance algal blooms and increased growth of aquatic macrophytes. Other streams in the watershed that contribute flows to Cascade Reservoir have also been designated as not meeting state water quality standards. Most of these are listed for sediment and to a lesser extent, nutrients. A reopener clause has been incorporated into the proposed permit to allow EPA to reopen the permit to incorporate applicable effluent limitations and conditions which may result from the completed TMDLs on any of these receiving waters.

4. Background

The effective and expiration dates of the existing permit were August 1, 1988 and August 2, 1993, respectively. The permit application was not submitted prior to 180 days of permit expiration, but was received on July 30, 1993 before the permit reached expiration. This permit contained secondary treatment requirements.

The city has made a series of modifications to the existing facilities that were built in 1981. Improvements were made to reduce I/I, increase pump station capacity and add a service area around Payette Lake. The latest upgrade of the treatment facility increasing design capacity to 2.0 mgd was completed in 1993.

5. Project Description

A. Design

The McCall wastewater treatment plant utilizes aerated facultative lagoons (aeration ponds) followed by sand filtration and chlorine disinfection and the design flow has been upgraded to treat 2 million gallons per day (mgd) of wastewater while the actual daily wastewater influent flow is approximately 0.78 mgd. The facility treats wastewater using two aerated lagoons at 2.0 mg/l dissolved Oxygen (D.O.) for 10 days prior to discharge into a settling pond (final lagoon). The wastewater is tested for compliance with permit requirements and subsequently discharged into the North Fork of the Payette River. Wastewater that does not meet permit requirements is routed through sand filters to improve effluent quality. Effluent from either the final lagoon or the sand filters is

chlorinated by solution injection prior to final discharge. The collection system has about 60 miles of conveyance and serves a combined population of about 5000 people. The facility reported a maximum discharge rate of 0.868 mgd on the NPDES application yet actual reported (DMRs) maximum was 1.6 mgd, still well below the 2.0 mgd design criteria.

This facility does not receive significant industrial wastewater flows.

C. Performance/Compliance History

A review of the Discharge Monitoring Reports (DMRs) and Compliance Sampling Inspection Reports for the past five years (1990 - 1995) shows that the McCall wastewater treatment plant has generally been in compliance with all terms of the existing permit. Six violations of residual chlorine ranging from 0.6 - 2.0 mg/l were noted (limit = 0.5 mg/l). Generally, these violations occurred during the winter/spring months. In the case of the violation where 2 mg/l was reported on the DMR a breakdown in the chlorine dosing equipment failed and caused elevated chlorine levels. Two violations of BOD₅ and one TSS violation were noted that occurred in the same months of 1993 (January and February). One violation of fecal coliform bacteria was noted, again in February 1993. All of the violations of BOD₅, TSS, fecals and one of the chlorine violations were attributed to a repair of the primary cell which caused an overloading of the sand filters over a two month period. The violations are summarized:

BOD ₅ Effluent:	1/93, 2/93
TSS Effluent:	1/93
Total Residual Chlorine:	12/91, 4/92, 1/93, 1/94, 4/94, 4/95
Fecal Coliform:	2/93

EPA was notified of the violations in all cases on the discharge monitoring reports submitted to EPA.

A summary of average plant performance is listed in Table 3:

Table 3		
Parameter	Units	Average Measurement
Flow	gallons/day (mgd)	0.885
BOD ₅ (Effluent)	mg/l	15.7
BOD ₅ % Removal	%	92
TSS (Effluent)	mg/l	15.6
TSS % Removal	%	93
Total Residual Chlorine	mg/l	0.4
Total Phosphorus	mg/l	10.2
Ortho - Phosphate	mg/l	3.7
Total NH ₃ as N	mg/l	29
Fecal Coliform	#/100ml	23
pH (min - max)	standard units	6.7 - 8.8

6. Basis of Limitations

The Clean Water Act (CWA) requires that all NPDES permitted discharges achieve technology-based effluent limitations established under Section 301, 306 or 402(a)(1) of the CWA, and any more stringent conditions necessary to achieve compliance with State water quality standards established under 303 of the CWA.

Effluent limits for the McCall facility are based on a combination of the secondary treatment regulations (40 CFR 133), and application of water quality-based limits as authorized under Section 301(b)(1)(c) of the Water Quality Act of 1987, and State of Idaho Water Quality Standards and Wastewater Treatment Requirements (IDAPA 16.01.2161 through 16.01.2400).

The requirements of the final TMDL which will require complete elimination of phosphorus loading from the McCall treatment facility precludes a conventional analysis for derivation of effluent limitations for the proposed permit. To be able to meet the requirements of the TMDL, the most economically viable option open to the city is total removal of the municipal wastewater discharge from the NFPR and Cascade Reservoir. Towards achieving this goal, IDEQ has

proposed a compliance schedule to be included in the proposed permit that establishes a final compliance date of January, 1999 for removal of effluent from the river. In the interim, limitations for the proposed permit for BOD₅, TSS, Fecal Coliform Bacteria and total chlorine residual will be carried over from the previous permit. These limitations will apply until the final compliance date in March, 1999. It is reasonable to apply the current limitations since they are (in most cases) more stringent than Secondary Treatment regulations under 40 CFR § 133.102.

A. BOD₅ and TSS

The Clean Water Act requires that discharges from publicly owned treatment works discharging to waters of the United States comply with secondary treatment requirements in 40 CFR §133.102. The current permit includes limitations more stringent than the minimum BOD₅ (5-Day Biochemical Oxygen Demand) and TSS (Total Suspended Solids) federal requirements. The city has an excellent record of compliance with these standards, the only violations as a result of repair to the primary cell. However, the original loading limitations were derived using previous design criteria and have been revised in the proposed permit to reflect new design criteria of 2.0 mgd. Therefore, concentration limitations for BOD₅ and TSS are retained from previous permit while effluent loading requirements have been increased to address increased effluent flows:

<u>Parameter</u>	<u>Average Monthly</u>	<u>Average Weekly</u>	<u>Percent Removal</u>
BOD ₅	20 mg/l	30 mg/l	85 %
TSS	20 mg/l	30 mg/l	85 %

The proposed permit also contains the following BOD₅ and TSS effluent load limitations:

<u>Parameter</u>	<u>Loading</u>	
	<u>Average Monthly</u>	<u>Average Weekly</u>
BOD ₅ (lb/day)	330	500
TSS (lb/day)	330	500

* Derivation of loading limits is based on the following assumptions/equation: design flow of 2.0 million gallons per day (mgd) x allowable concentration (mg/l) x 8.34 (conversion factor) = loading (lbs/day).

Both the monthly average effluent BOD₅ and TSS loadings shall not exceed 15% of the respective monthly average influent BOD₅ and TSS loadings collected concurrently.

B. Dissolved Oxygen

Under low flow conditions the McCall discharge can cause violations of water quality standards for dissolved oxygen based on the designated uses of this reach of the river. To protect for salmonid spawning, State of Idaho Water Quality Standards establish a limit of no less than 6 mg/l or 90% saturation, whichever is greater in the water column. A limitation to dissolved oxygen is included in the proposed permit to insure the criteria are met.

C. Fecal Coliform Bacteria

Fecal coliform limits of 50 colonies/100 ml monthly average and 100 colonies/100 ml weekly average in the existing permit are fully protective of the beneficial uses of the NFPR. Idaho Water Quality Standards and Wastewater Treatment Requirements, (IDAPA 16.01.2420.) require less stringent standards for fecal coliform. Due to antibacksliding considerations the more restrictive limits shall remain in the proposed permit. The city has not demonstrated any significant non-compliance with the current limitations during the past five years of operation.

D. Total Chlorine Residual

A daily maximum total chlorine residual limitation of 0.5 mg/l is included in the proposed permit to protect receiving water from potential chlorine toxicity. This value represents the minimum concentration consistently achievable utilizing the existing facilities that will assure compliance with fecal coliform limitations. To date, effluent and ambient data collected during low flow periods does not suggest chlorine toxicity is occurring in the receiving water. The limitation from the previous permit shall apply and is protective of the designated uses of the receiving water.

E. Metals Toxicity

EPA is required to carry out water quality-based permitting analyses to establish limitations for toxic substances in NPDES permits under the Clean Water Act of 1987. The water quality-based analysis is based on applicable criteria under the National Toxics Rule, December, 1992

(NTR). The Idaho Water Quality Standards and Wastewater Treatment Requirements passed by the Board of Health and welfare in June of 1994 adopts the NTR in whole by reference. Pursuant to 40 CFR 122.45,

Under 40 CFR 122.44(d)(1)(ii) EPA is required to perform a reasonable potential analysis to determine if a permittee's discharge has a reasonable potential to cause or contribute to an instream excursion above a federal or state numeric criteria.

To be able to conduct a reasonable potential analysis, good water quality data for the discharge and receiving stream should be utilized. A review of available data provided by the state staff evaluation indicates scant water quality data exists for heavy metals in the NFPR upstream of the McCall effluent or in the effluent itself. Several sets of analyses for metals were found in records for the McCall public water system which takes water out of Payette Lake and USGS metal data at their gaging station below Payette Lake. The table below lists the major metals of concern, and the ambient level representative of water in the North Fork of the Payette.

Table 4 (NFPR Ambient Monitoring Summary)	
Parameter	Ambient Concentration
Arsenic	<0.005 mg/l
Cadmium	<0.001 mg/l
Chromium(III)	<0.002 mg/l
Copper	<0.001 mg/l
Cyanide	<0.005 mg/l
Lead	<0.002 mg/l
Mercury	<0.0002 mg/l
Nickel	<0.003 mg/l
Silver	<0.001 mg/l
Zinc	0.004 mg/l

*one-half of aquatic life or human health criteria

As the above table indicates, little metals data is available and the minimum detection levels are not low enough to accurately evaluate

ambient conditions in the river. Zinc was the only metal where an actual value was reported. No metals data for the effluent was provided by the state staff evaluation. On the basis of the information available, a reasonable potential analysis cannot be calculated. Therefore, effluent limitations for metals have not been applied in the proposed permit. So that an accurate chemical characterization can be made and to protect for all designated uses of the NFPR, effluent/ambient monitoring requirements for all metals of concern is included in the proposed permit.

F. Nutrients

The nutrient analysis for the city of McCall is based upon Water quality studies on Cascade Reservoir have determined that phosphorus is the limiting nutrient in preventing excessive algal growth and associated problems. A phased TMDL and Watershed Management Plan for the Cascade Reservoir drafted by the State of Idaho Division of Environmental Quality is in final form for approval by EPA. The TMDL requires complete elimination of the city's wastewater discharge from the NFPR as part of a goal to achieve a 30% reduction in phosphorus levels in the reservoir to mitigate algal growth problems. Studies have indicated that the McCall wastewater discharge may contribute approximately 4.25 - 11% of the total phosphorus load to the reservoir. Elimination of the McCall phosphorus load would greatly assist the effort of reaching the goal of a 30% overall reduction.

This requirement represents a goal that McCall cannot meet through conventional treatment. Tertiary treatment for phosphorus was considered in the present McCall facilities planning study and additional treatment for the toxic parameters would make the treatment plant capital costs unreasonable. The present selected alternative in the McCall study is slow rate land application with winter storage. This alternative would eliminate the present McCall discharge from the NFPR by early 1999. A compliance schedule has been included in the proposed permit, allowing the city until January, 1999 to cease discharging to the NFPR.

G. Other Limitations

Effluent pH limitations of 6.0 to 9.0 in the existing permit are fully protective of the beneficial uses of the NFPR and Cascade Reservoir and are in accordance with Idaho Water Quality Standards (IDAPA 16.01.2200.06).

Part I.A.2. of the proposed NPDES permit (which requires prohibition of

the discharge of floating solids, visible foam, or oily wastes) is required pursuant to Idaho Water Quality Standards (IDAPA 16.01.2200).

7. Biomonitoring

In accordance with 40 CFR 122.44(d)(1), EPA is required to evaluate a discharge for its reasonable potential to cause or contribute to an instream excursion above narrative water quality criteria (IDAPA 16.01.2003,20). In addition, toxicity testing is required to determine compliance with water quality standards. In order to further assess the discharge, whole effluent toxicity testing has been incorporated into the proposed permit. The required toxicity testing program is aimed at determining acute and chronic biological effects of the discharges. Similar toxicity testing has been widely used by the Agency in ambient monitoring studies and has been required in other NPDES permits.

The pollutants of concern at the facility are currently being regulated through chemical specific limits. However, these controls alone cannot assure that complex effluent effects are not occurring. As a result, the facility will be required to conduct whole effluent toxicity screening tests annually at the outfall. These tests will be to establish the chronic toxicity levels of the effluent using bioassays.

The objective of the tests is to have effluent concentrations in the receiving stream less than the known toxic effects concentration. This can be expressed as follows:

$$IWC \leq NOEC$$

where,

IWC = the instream waste concentration or the concentration of effluent in the receiving stream after mixing, and

NOEC = the no observed effect concentration or the highest measured concentration of effluent that causes no observed effect on a test organism.

Both IWC and NOEC are expressed as percent effluent. The higher the IWC, the greater the percentage of effluent in the receiving water. If the above equation is satisfied, then the receiving stream is protected against aquatic toxicity.

The proposed permit has established the IWC, and the percentage of effluent:

Outfall 001 IWC = 48%

This percentage is based on the dilution available in the receiving water for the McCall outfall. The 25% mixing zone is based on the Idaho State Water Quality Standards for mixing zones (IDAPA 16.01.2400,03.e.iv.).

The IWC is calculated as follows:

$$IWC = \frac{Q_{\text{effluent}}}{25\%Q_{\text{stream}} + Q_{\text{effluent}}}$$

where,

Q_{effluent} = effluent flow, and

Q_{stream} = receiving water flow.

therefore,

$$IWC = \frac{3.09 \text{ cfs}}{(.25)21.07 \text{ cfs} + 3.09 \text{ cfs}} = 0.37 = 37\%$$

The proposed permit requires testing of the effluent a minimum of 2 times each year. If the NOEC is less than or equal to 37%, then the permittee must conduct six accelerated tests for each outfall concerned.

If acute toxicity is demonstrated during the chronic tests, the permittee is required to report the LC_{50} . The LC_{50} is the pollutant concentration at which 50 percent of the test organisms are killed. If acute toxicity is demonstrated at a dilution of less than or equal to 37%, then six accelerated acute tests are required.

The toxicity tests shall include a series of dilutions from control water to 100 % effluent such that it includes the expected dilution at the outfall (37%) effluent concentration after dilution.

If the accelerated testing also indicates the acute or chronic toxic effects of the effluent, EPA will evaluate the data to determine what appropriate enforcement response may be necessary

8. Monitoring Requirements

A. Treatment Plant / Ambient Monitoring

Self-monitoring of permit parameters is necessary for the permittee to demonstrate compliance with effluent limitations and to assure that state water quality standards are being met. Monitoring frequencies are based on the Agency's determination of the minimum sampling frequency required to adequately monitor plant performance. Required sample types are based on the Agency's determination of the potential for effluent variability. These determinations take into consideration several factors, of which the most important are size and type of facility.

The permittee shall monitor for the parameters limited in the proposed permit to adequately assess treatment facility performance and characterize the effluent. In addition, influent BOD₅ and TSS must be monitored to calculate removal rates. Monitoring of other parameters has been included to provide data to characterize nutrient and metals contributions to the receiving waters and Cascade Reservoir. Ambient upstream monitoring of nutrients has been included in the proposed permit to provide information on natural conditions in the NFPR. Proposed treatment facility monitoring requirements are summarized in Table 5.

Table 5				
Parameter	Units	Location	Frequency	Sample Type
Flow	mgd	Effluent	Continuous	Recording
BOD ₅	mg/l	Influent Effluent	3/Week 3/Week	Grab Grab
TSS	mg/l	Influent Effluent	3/Week 3/Week	Grab Grab
Fecal Coliform Bacteria	#/100ml	Effluent	3/Week	Grab
Chlorine Residual	mg/l	Effluent	Daily	Grab
pH	standar dunits	Effluent *NFPR (upstream)	Daily **Quarterly	Grab
Temperature	°C	Effluent *NFPR	Daily **Quarterly	Grab
Total Ammonia Nitrogen (NH ₃ -N)	mg/l	Effluent Effluent *NFPR (upstream)	3/week (June 1-Sept. 15) Weekly (Sept. 16-May 31) **Quarterly	Grab
Total Phosphorus as (P)	mg/l	Effluent Effluent *NFPR (upstream)	3/week (June 1-Sept. 15) Weekly (Sept. 16-May 31) **Quarterly	Grab

Table 5				
Parameter	Units	Location	Frequency	Sample Type
Total Ortho Phosphate (ortho-P)	mg/l	Effluent Effluent *NFPR (upstream)	3/week (June 1-Sept. 15) Weekly (Sept. 16-May 31) Quarterly**	Grab

* The NFPR shall be sampled immediately upstream of the permittee's discharge at a location agreed upon by the city, IDEQ and EPA.

** Quarterly ambient monitoring results shall be reported on discharge monitoring reports for the months of December, March, June and September.

All of the treatment facility monitoring requirements listed in table 5 have been retained from the previous permit.

9. Quality Assurance Requirements

A. Quality Assurance Project Plan

To ensure that quality data is collected, the permit requires the development of a Quality Assurance Plan. The purpose of the Quality Assurance Plan is to establish appropriate sampling, handling and analytical procedures for all effluent and ambient water samples taken.

Additionally, the permittee must use analytical methods approved in 40 CFR 136 as well as achieve method detection limits (MDL's) when sampling for the parameters listed in Table 5.

B. Detection Level/Compliance Reporting of Water Quality-based Effluent Limitations

As a result of the increasing use of water quality-based effluent limits (WQBEL) in NPDES permits, a significant number of permits now contain limits that fall below the capability of current analytical technology to detect and/or quantify specific parameters. Past permits have been based on EPA's draft "National Guidance for the Permitting, Monitoring, and Enforcement of Water Quality-Based Effluent Limitations Set Below Analytical Detection/Quantitation levels" (March 1994) outlines objectives for achieving consistency in establishing permit pollutant limitations for pollutants that are set below detection levels, taking into consideration the capabilities and uncertainties of currently available analytical

methodologies. This draft guidance has been opposed by industry groups and is currently on hold. Therefore, EPA Region 10 has developed guidance with respect to water quality based effluent limits set below the analytical detection levels.

According to Region 10 guidance, the permit and fact sheet should incorporate the following basic components:

- Water quality based effluent limits should be incorporated into the NPDES permit where applicable.
- Incorporate method detection limits (MDL's) into the permit.
- Under the Quality Assurance Project Plan in the permit, have the permittee specify the 40 CFR 136 analytical test methods they will use to achieve the required MDL's.
- Interim minimum levels¹ (Interim ML) should not be incorporated into the permit as a compliance level to be achieved.
- Actual analytical results should be reported on the discharge monitoring report (DMR); if the analytical results are less than the MDL then the permittee should report "less than {MDL number}" on the DMR.
- If the permit has WQBEL's below the analytical detection/quantitation level the permit writer should consider incorporating one or more of the following into the permit: limits for internal waste streams; mass loading limits; sediment studies/sediment toxicity tests; bioaccumulation study.
- Some facilities may be unable to meet the specified MDL's due to matrix interferences. EPA believes that it is important to distinguish between instances when MDL's are not achieved due to poor laboratory technique and when matrix interferences do, in fact, occur. To make this determination, guidelines and procedures under which facilities must conduct studies and, if appropriate, develop discharge-specific MDL's must be set forth. Without this, facilities are likely to develop less stringent MDL's for use as quantification levels that have no technical basis.

¹ Interim ML = MDL X 3.18

- To ensure quality data, MDL's should be specified for ambient monitoring requirements.

The MDL is defined by 40 CFR Part 136. EPA's procedures for determining the MDL are sufficiently conservative, in that the procedure calls for making replicate measurements in samples with a concentration in the range of one to five times the estimated detection limit. The MDL takes into account the error of the measurement process, i.e., as the measurement error increases, the MDL will increase. This relationship assures that unrealistically low MDLs will not be obtained.

Using the MDL value as a compliance threshold when the permit limit is below the analytical detection level would mean that any detection would be a violation of the limit. MDLs are typically determined in a clean matrix and may not be achievable in other matrices, including industrial effluents.

Additionally, since the MDL is determined by the analyses of a series of replicate samples, its applicability to single sample analyses may be open to question. The MDL may not take into account bias, analyst proficiency, laboratory variability, matrix effects and other conditions that may affect laboratory results. Furthermore, because the statistical derivation of the MDL is designed to minimize the occurrence of false negatives, it has been suggested that using the MDL as a compliance threshold may lead to unacceptable levels of false positive results, i.e., potential permit violations.

The minimum level is defined as the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method-specified sample weights, volumes, and processing steps have been followed. Minimum levels are method-specific and are established during the development and validation of the method. However, only the 1600 Series EPA methods currently have Agency-published minimum levels.

Where published minimum levels are not available, EPA believes that interim minimum level values can be derived most effectively as a multiple of the existing MDL value for a given analyte. The interim minimum level is calculated as 3.18 times the published MDL for the analyte from a specific analytical method approved under section 304(h) of the Clean Water Act or previously approved for use by the permitting authority. When neither the minimum level or the MDL is available, 3.18 times the method detection level should be used.

Interim minimum levels will not be included in the permit, however, they

will be used by EPA Region 10 compliance officers to evaluate if an effluent limitation has been violated.

Published MDLs for total residual chlorine and EPA sampling methods listed in 40 CFR 136.3 Table IB. Chlorine should be analyzed using the test method from the 17th Edition of Standard Methods, Method 4500-Cl F with an MDL of 18 µg/l.

10. Endangered Species Act Consultation

Endangered species lists requested by EPA were received from the U.S. Fish and Wildlife Service and the National Marine Fisheries Service on October 30, 1995 and November 5, 1995, respectively. Two listed species, the Gray Wolf and the Bald Eagle were listed species that may be potentially impacted as a result of reissuance of the McCall wastewater treatment facility discharge. No other species were listed. No impacts are anticipated for the listed species since the reissuance of the NPDES permit will not involve any construction activities.